

COLGATE & COMPANY JERSEY CITY PLANT: K BLOCK  
(Colgate-Palmolive Company Jersey City Plant: K Block)  
88 Hudson Street/20 Grand Street  
Jersey City  
Hudson County  
New Jersey

HAER No. NJ-71-QQ

HAER  
NJ  
9-JERC1,  
18QQ-

PHOTOGRAPHS

WRITTEN HISTORICAL AND DESCRIPTIVE DATA

HISTORIC AMERICAN ENGINEERING RECORD  
Northeast Field Area  
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200 Chestnut Street  
Philadelphia, PA 19106

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- Location: 88 Hudson Street/20 Grand Street, Jersey City, Hudson County, New Jersey
- Significance: K Block served as the principal Colgate-Palmolive pilot plant and product development research center c1952-62, and remained the company's most important pilot plant until 1987. Although not an individually significant structure, K Block was significant as a component of the Jersey City plant, and as the historic core of Colgate-Palmolive research efforts prior to 1962.
- Description: In Colgate-Palmolive terminology, K Block sometimes referred to the area bounded by the Hudson River and York, Hudson, and Grand streets, but the designation was usually reserved for the two-structure complex at the northeast corner of Hudson and Grand streets. K-1 and K-2 were designed and built together, with the former used primarily for product development or finishing research and the latter for process development. K-1 had six stories on a 100-by-80-foot plan; adjacent K-2, to the east, had the same plan size, but was one story lower with its long axis perpendicular to that of K-1. Both buildings were pile-supported, steel-framed, International-Style structures, with glazed yellow-brick curtain walls and horizontal ribbons of steel sash windows (Figures 1 and 2).

Surface ornamentation was limited to a cast stone coping at the flat roofline, cast-stone window sills, and a cement-finished basement course protruding one inch from the building surface with height varying relative to the slope of the site towards the river (VIEW NORTHEAST). The continuous bands of windows provided transparency at the southwest and southeast corners of the combined buildings, creating an illusion of free-floating wall surfaces in between. Window treatment divided the building exteriors into one or two bays per side. The bay division was not structural, but rather followed primarily from a design emphasis on separate K-1 entrance bays on Hudson and Grand streets. The easternmost exterior bay of K-1 on Grand Street, at a pedestrian entrance and stairwell serving both buildings, was an almost continuous vertical band of glass block, separated at the floor levels by horizontal bands of concrete. This vertical band served to illuminate the staircase within. There was also a truck bay and adjoining man-door immediately to the west. The northernmost bay of the Hudson Street facade, at the

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\* Capitalized references are to photographs included with this documentation, or with documentation for HAER No. NJ-71 and associated structures.

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other principal stairwell, had a more ornamented version of the same vertical band above a utilitarian double door entrance framed in a smooth concrete surround. A small extended concrete canopy served as a lintel, evoking post and lintel construction. Above the first floor, the door enframingent continued upward in a vertical strip of inset glass block with plain horizontal concrete panels between the floor levels (Figure 2; VIEW NORTHEAST; NORTHWEST CORNER TO EAST; see HAER No. NJ-71, K-2 TO NORTHWEST; K-1 AND B-8 AT LEFT CENTER).

The sides of K Block visible from York Street had similar but less ornamented fenestration. Smaller steel-sash windows illuminated a stairwell at the northeast corner of K-2, breaking the north facade of that building into two unequal bays. The north facade of K-1 was similarly divided, but had only one small window at the top of the northwest stairwell, which was lit from Hudson Street as described above. The east side of K-1, joining K-2, had shorter bands of windows corresponding to interior structural bays, placed around the K-2 roofline and a steel-framed pilot plant spray tower at the northwest corner of K-2. Man-doors linked the second through fifth floors of K-2 to the tower (see HAER No. NJ-71, K-2 [LEFT] AND K-1 TO SOUTH; B-8 AT RIGHT).

K-2 shared the Grand Street entrance with K-1, and also had a loading dock and garage doors facing the Hudson River, plus a small man-door on this same side at the northeast corner stair. A third-floor steel-framed pedestrian bridge over Grand Street linked K-1 to E-1 (VIEW TO NORTHEAST; see HAER No. NJ-71-II). There was a one-story, single-bay, ten-by-ten-foot canopied guard booth adjacent to the K-1 Hudson Street entrance, with sliding horizontal sash and brick curtain walls similar to those of K Block. The booth was added c1975, when Colgate-Palmolive closed off most streets within the plant limits (NORTHWEST CORNER TO EAST; see HAER No. NJ-71-PP). Other small auxiliary structures at K Block included a twenty-one-foot-square brick equipment house on the north side of K-2, a separate ten-by-twenty-foot metal shed for caustic storage north of the spray tower, and a ten-by-twenty-eight-foot metal shed east of K-2 for flammable liquids storage. Tanks on the north side of K-2 stored caustic, detergent base, and soap base (see HAER No. NJ-71, K-2 [LEFT] AND K-1 TO SOUTH; B-8 AT RIGHT).

The skeletal frame construction and cubistic form of the buildings allowed for open interior planning necessary for research and pilot plant functions. Concrete mushroom columns created a four-by-four-bay interior space in K-1, and supported steel-framed, ceramic-tile-finished, cast-concrete floors. K-1 was designed for product development and finishing. Research and engineering projects in K-1 focused on creating product prototypes from research ideas, and on improvements in soap finish-

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ing and preparation. These tasks had relatively permanent equipment installations with little need for inter-floor equipment movement. The first floor included lockers, receiving stations, and maintenance shops for work on pipe, wood, metal and electrical or mechanical equipment. The second floor included conference space and offices for technical personnel. Floors three and four had several laboratories equipped to control pilot plant results, and scaled-down soap processing and finishing installations. The upper floors were used at various times for equipment storage and experiments (Figure 2).

K-2 was designed for development or improvement of manufacturing processes, work requiring multi-floor pilot plant layouts and accommodation for space-consuming synthetic detergent-making technology. The same structural system used in K-1 here created a four-by-three-bay interior, with a narrower bay about 15.3 feet wide through the longitudinal center. The eastern 62.3 feet of this bay was a railed opening on the second through fifth floors, with overhead crane facilities for inter-floor equipment transfers (Figure 2). Mezzanine floors around this well, reached by stairs in the northwest and southeast corner of K-2, were concrete on two sides of the well and steel grating covered by .25-inch-mesh steel diamond plate on the third side. The smaller-mesh plate was installed to minimize interfloor spills. Long-term use of the well spaces for equipment and for production of the toothpaste ingredient GARDOL led to metal-plated covering of the space. The first floor had, at various times, air compressors, a vacuum pump, and a batch sulfonation unit. Upper floors had a variety of multi-level pilot plant installations for synthetic and liquid detergents.

History:

Colgate-Palmolive-Peet's dispersed and cramped research facilities, centered in several parts of the Jersey City plant, were inadequate in the growing synthetic detergent market, and in renewed competition for more traditional products, after World War II. K Block was built in 1951-52, to designs of Alexander D. Crosset, immediately after the initial phase of building synthetic detergent production facilities at all four domestic Colgate plants. K-1 was built with four stories, with the steel frame designed for addition of two more stories built two years later. Although K Block quadrupled the company's earlier pilot plant space, increases in research staff soon outgrew the new facility and some research was moved to the New Brunswick, NJ, area. The eventual 1959-62 construction of a separate Colgate Research Center adjacent to Rutgers University in Piscataway removed most basic laboratory research from the Jersey City plant, but left pilot plant process and development functions at the older site until 1987. K Block was demolished in 1988.

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Sources:

Plans

All drawings listed below are currently (1991) held by the Colgate-Palmolive Company in L-1 at the Jersey City Plant (HAER No. NJ-71-SS). For future access, researchers should contact the company's Office of Corporate Communications, 300 Park Avenue, New York, NY 10022.

Crosset, Alexander D., Engineer

1951	Pilot Plant Process and Finishing Building (69 drawings):	
A-1	Plot Plan	A-12 Cross Sections
A-2	First Floor Plan	A-13 Stair #1 & #5 Details
A-3	Second Floor Plan	A-14 Details of Stair #2
A-4	Third Floor Plan	A-15 Stair #3 & #4 Details
A-5	Fourth Floor Plan	A-16 Toilet Details
A-6	Fifth Floor Plan	A-17 Door Schedule
A-7	Roof Plan	A-18 Wall Details
A-8	South Elevation	A-19 Misc Details
A-9	North Elevation	A-20 Pedestrian Bridge
A-10	East & West Elevations	A-21 2nd, 3rd, 4th, & 5th Fl Framing Plans
A-11	Longitudinal Sections	
E-1 -	1st to 5th Fl Plans	HV-1- 1st to 5th Fl Plans Heating,
E-5	Electrical [5 dwgs]	HV-5 Ventilating, & Process Steam Piping [5 dwgs]
E-6	Plot Plan & Roof Plan - Electrical	
SP-P-1	Mechanical Utility Plan	P-1 - Plumbing Plans, Foundation to Roof
SP-1 -	1st to 5th Fl Plans	P-7 [7 dwgs]
SP-5	[of sprinklers - 5 dwgs]	P-8 Toilet Details
		P-9 Riser Diagram
S-1A	Revised Pile Plan	S-12 Future Framing around Penthouse
S-2A	Revised Foundation Plan	S-13 Yard Work
S-3	Foundation Sections & Details	S-15 Column Sched & Details/Process Bldg
S-4	2nd & 3rd Fl Framing	S-16 2nd Fl Framing Plan & Details/ Process Bldg
S-5	Roof & 4th Fl Framing	S-17 3rd, 4th Fl Framing Plan & Details/ Process Bldg
S-6	Column Schedule	S-18 5th Fl & Roof Framing Plan & Details/ Process Bldg
S-7	Beam Details	S-19 Bridge Between Finishing & E-1 Bldg
S-8	Beam Details	S-20 Girt Framing for Tank Room/ Process Bldg
S-9	Slab Schedules	S-22 Vertical Duct Supports
S-10	Stair #10	
S-11	Stair #11 & Penthouse	

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1954 Pilot Plant Addition to Finishing Building (21 drawings):

A-1	Existing Conditions	E-1	5th & 6th Fl Plans - Riser Diagram
A-2-A	5th Fl Plan	HV-1-A	5th & 6th fl Plans - Heating, Ventilating & Process Steam Piping
A-3-A	6th Fl Plan	HV-2-A	Roof, Riser Diagram & Details/Heating & Ventilating
A-4	Roof Plan	SP-1	Sprinklers 5th & 6th Fl & Roof Plans
A-5	East & West Elevations	P-1	Plumbing 5th & 6th Fl Plans
A-6	North & South Elevations	P-2	Plumbing Roof Plan, Details & Riser Diagram
A-7	Sections & Details		
A-8	Stair #1 & Details		
S-1	6th Fl & Roof Framing Plan	S-4	Beam Details
S-2	Slab Schedule	S-5	Stair #1 & Beam Details
S-3	Column Schedule	S-6	Roof Beams; 40# Live Load Only "Void"
		S-7	Alternate Roof Slab Sched "Void"

O'Donnell, James P.

1951 Spray Tower Pilot Plant (4 drawings):

5895-031 West, North, East, South Elevations

5895-032 Platform Framing

5895-033 Structural Details

5895-034 Architectural Details

Colgate-Palmolive-Company

1954 K Block 150# Steam Supply Diagram. Dwg. No. 1-0308-0-JC.

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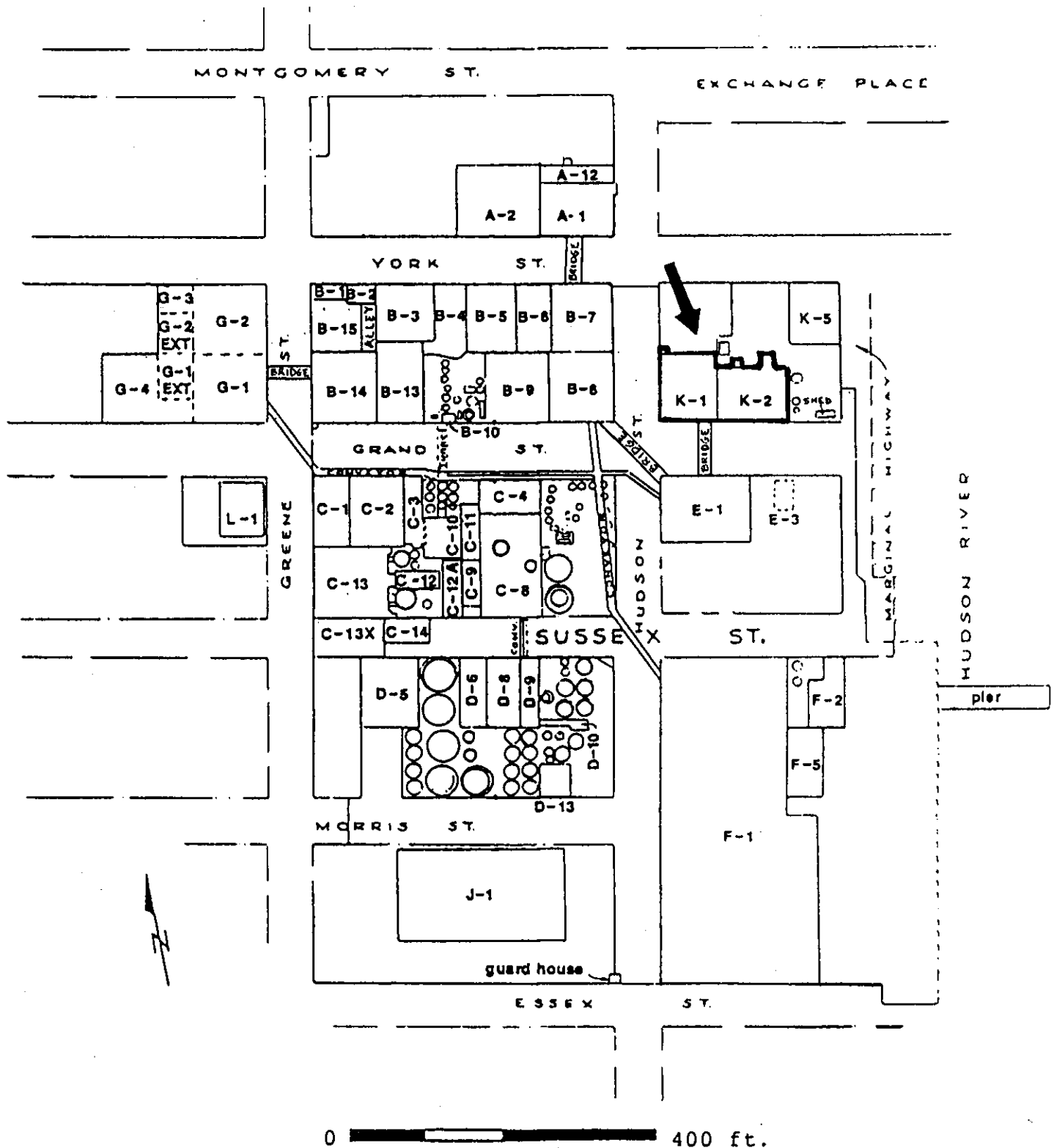


Figure 1. LOCATION OF K BLOCK AT COLGATE JERSEY CITY PLANT



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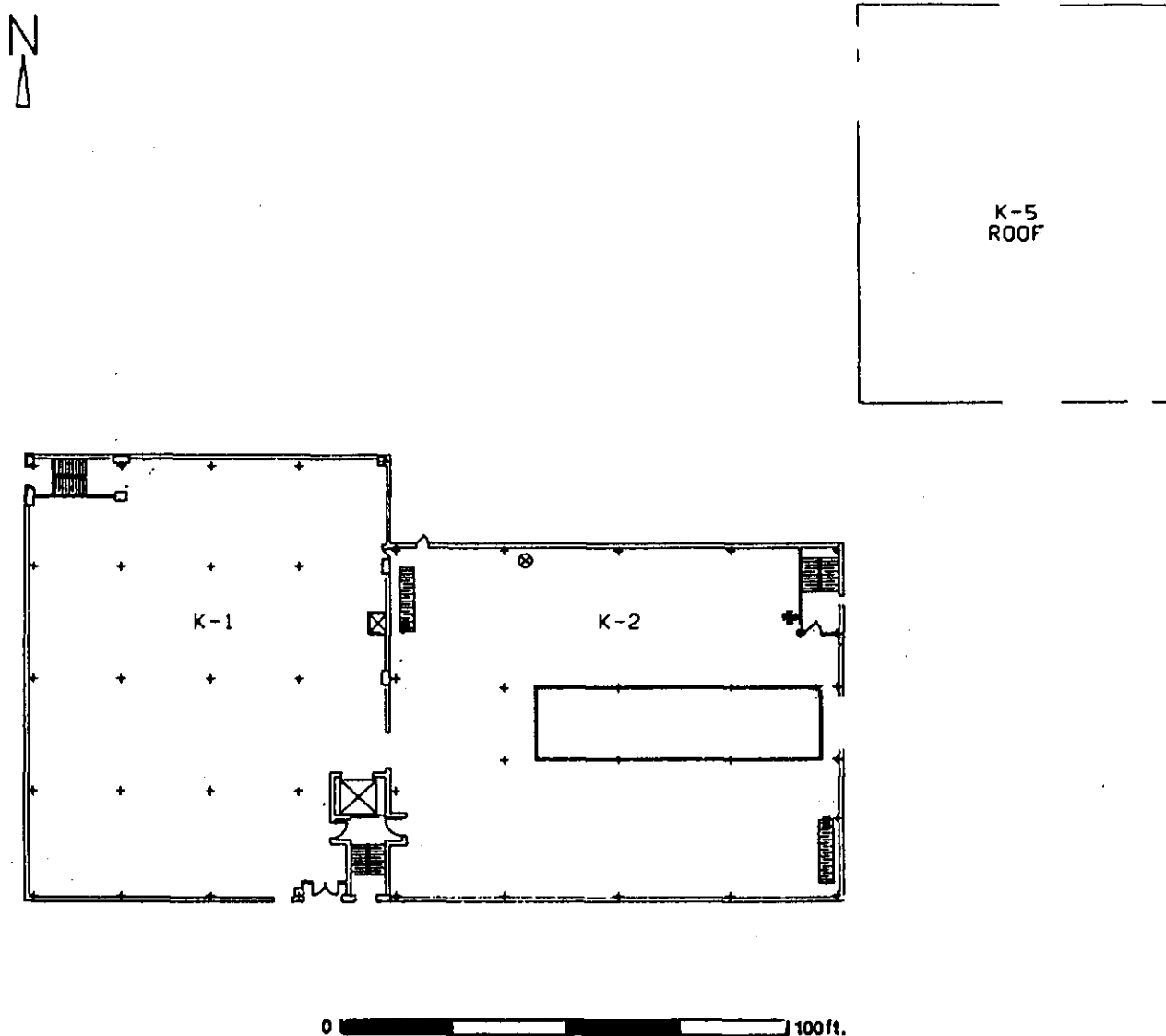


Figure 2. SECOND FLOOR LEVELS OF K-1 AND K-2, AND K-5 ROOF